

REMARKS

Upon entry of the present amendment, claims 1-7, 11-14, 18-21 and 24-34 are pending in the application. Claims 1, 21 and 25 have been amended and previous pending claims 8-10, 15-17, 22 and 23 have been canceled. Support for these amendments may be found throughout the Specification and at least at [25], [26] and [28].

Examiner Interview

Applicants would like to thank Examiner Matthew Merkling for the time and courtesy extended to Applicant's Representatives James McPherson and Mary Golota during a telephone interview conducted on July 2, 2008. During the interview, pending claims 1 and 21 and certain prior art references were discussed. An agreement was reached that amendments to the claims to more clearly define the direction of fluidizing input and catalyst nanoparticles would appear to overcome the prior art rejections.

Claim Objections

Claim 1 was objected to for including a typographical error. Specifically, claim 1 recites the size of the nanoparticles being "15 m to about 25 nm" as oppose to "15 nm to about 25 nm" as recited in the specification. Applicants have amended claim 1 to recite "15 nm to about 25 nm". Claim 1, line 8, was further amended to correct a punctuation mark. In view of the foregoing amendments, Applicants have rendered the objection to claim 1 moot.

Claim Rejections under 35 U.S.C. §103

Previously pending claims 1, 3-5, 21, 24-27 and 30-34 were rejected under 35 U.S.C. §103(a) as being obvious based upon U.S. Patent No. 3,615,256, to Miller, and in view of one or more of the following 5 patents or published patent applications: U.S. Patent No. 6,500,969, to Zhou, U.S. Patent No. 4,994,498, to Kinkade, U.S. Published Application No. 2006/0078771, to

Ballantine et al., U.S. Patent No. 3,997,447, to Breton et al. and/or U.S. Patent No. 5,936,135, to Choudhary et al. Previous pending claims 1-4, 6, 7, 9-20 and 25-34 were rejected under 35 U.S.C. §103(a) as being obvious based upon U.S. Patent Publication No. 2002/0006368, to Becker et al., and in view of one or more of following 14 patents or published patent applications: U.S. Patent No. 6,500,969, to Zhou, U.S. Patent No. 6,782,892, to Li et al., U.S. Patent No. 6,887,291, to Alford et al, U.S. Patent Publication No. 2006/0078771, to Ballantine et al., U.S. Patent No. 5,933,702, to Gaswami, U.S. Patent Publication No. 2002/0187082, to Wu, U.S. Patent No. 6,812,470, to Sato, U.S. Patent No. 6,653,356, to Sherman, U.S. Patent Publication No. 2005/0129591, Wei et al., U.S. 4,585,673, to Sigai, U.S. Patent No. 3,615,256, to Miller, U.S. Patent No. 4,994,498, to Kinkade, U.S. Patent No. 3,997, 447, to Breton et al. and/or U.S. Patent No. 5,936,135, to Choudhary et al. Applicants respectfully disagree.

For the purpose of Appeal, Applicants hereby incorporate by reference all previously presented arguments submitted in the Office Action Response dated March 20, 2008, which was in response to the rejections presented in the Office Action dated December 20, 2007. Notwithstanding, in the interest of expediting prosecution, Applicants have amended independent claims 1, 21 and 25 pursuant to the Examiner's Interview discussed herein. Claims 1, 21 and 25 now recite that the fluidizing input has an outlet directed "towards the lower surface and between about 0° to 90° with respect to the lower surface", which defines a portion of the hollow interior region. Independent claims 1, 21 and 25 were further amended to clarify the gaseous dispersion of the plurality of catalyst nanoparticles and potential candidates for the catalyst nanoparticles. Applicants believe that the prior art of record fails to teach or suggest the combinations of features of claims 1. 21 and 25, as currently recited. Accordingly, in view of the forgoing amendments the rejections to claims 1-7, 9-21 and 24-34 have been rendered moot.

CONCLUSION

Applicants respectfully submit that the Application and pending claims are patentable in view of the foregoing remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,

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July 9, 2008

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